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Thesis for Doctor of Public Health Degree of Johns-Hopkins University

on

CORRECTION OF DEFECTS FOUND IN SCHOOL MEDICAL INSPECTION

By

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Baltimore, Maryland,
December, 1923.

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1. History of School Medical Inspection in United States.

The school medical inspection in United States was first initiated in large cities and so rapidly did the movement establish itself, that it was soon provided for by laws in the more progressive States. As to the development of the school medical inspection, Boston was the first city to establish school medical inspection in 1894, and followed by Chicago in 1895, and New York City in 1897, and Philadelphia in 1898.

In 1899, the first State has passed a law providing for testing of vision in all public schools was Connecticut, and then followed by other States. Such as New Jersey authorized the Board of Education to employ medical inspectors in 1903, and Vermont exacted a law requiring the annual examination of eyes, ears and throats of school children in 1904, and Massachusetts passed a law providing state-wide medical inspection in all public schools in 1906, and in the following 15 years nearly all the other States have provided some kind of law requiring the school medical inspection except two or three States having no whatever kind of law for school medical inspection. The administration of school medical inspection law can be classified into the following categories:

(1) The administration is solely under the direction of Department of health.

(2) The administration is solely under the direction of Department of Education.

(3) The administration is under the direction of Board of Education with the cooperation of the State Department and local health authorities.

Speaking of the popularity of the State agency to administer the law the first class under the direction of Department of Health is

quite extensive and the second class under the Direction of Education is the least popular and the third class under the direction of the Board of Education with the cooperation of the State Department of Health and local health authorities is the majority and most popular in the past and present.

In the past, most of the school medical inspectors were working on part-time basis, also poorly paid and the methods of examining children varied widely according to the training of the inspectors. In addition, the number of medical inspectors and their time devoted to medical inspection was inadequate in most cases.

11. Present Status of School Medical Inspection in United States.

The school medical inspection of today is doubtless better than fifteen years ago in every State, but actually judging from the work accomplished and the system of school medical inspection used, not more than half dozen States and large cities have made strides in advance of school medical inspection during the last fifteen years, and among those progressive States are New York, New Jersey, Pennsylvania, Virginia, Massachusetts and Maine, and among those progressive cities are New York City, Chicago, Trenton, Yonkers, Oakland and Philadelphia. Besides other States have fairly good school medical inspection, namely Alabama, Tennessee, North Carolina, New Hampshire, Michigan, and California, and other cities have fairly good medical inspection, namely Detroit, San Francisco, Milwaukee, Los Angeles, Wichita, Gary, Flint and Lansing.

From my questionaires to all the States and some large cities, it has revealed that practically 90% of the States and cities have no systematic school medical inspection, however, most of these States formerly have been claimed to have passed some kind of law

relating to school medical inspection, and still many States have no provision for school medical inspection except in some localities where the school medical inspection is conducted by the local authorities. In the latter case, there is no doubt that the school medical inspection there is far from satisfaction.

As State of Vermont has enacted a law in 1904, requiring the annual examination of eyes, ears and throats of school children, and the practice of this law not carried out until several years later, but it became general only during the time of the District Health Officer system, 1919-1923, and now this latter system has been abolished by the Legislature, therefore, what will be done in regard to school medical inspection by various cities of the State, nobody knows.

In 1899, the first State, Connecticut, has passed a law providing for testing of vision in all public schools, and since then, the law was supposed to be in force and my recent questionaires surprise me very much when it reveals that Connecticut has neither state-wide systematic school medical inspection nor any statistics of the work accomplished. State of New York has started a state-wide school medical inspection since 1915, and the work improves year by year till now, the system of school medical inspection and its results can be regarded as the best in this country.

Pennyslvania has begun a state-wide school medical inspection since 1913, and the work improves gradually, however, the system of school medical inspection and its results are not as good as New York, but can be well regarded as one of the best.

State of New Jersey has a state-wide school medical inspection for many years with its best city, Trenton, as the leader.

State of Virginia has begun state-wide school

medical inspection since 1918, and the work has been well under way, and its results are fairly good.

State of Massachusetts has started state-wide systematic school medical inspection for many years, but it is imperfectly carried out in many communities, owing to the inadequate appropriations, also the decentralization of the State policy, so the results show great variations, but the work is being done more thoroughly year by year.

For the school medical inspection in cities like New York, Chicago, Yonkers, Detroit, and Oakland, they have started the work many years ago with the liberal appropriations and better trained men and hospital facilities till present, the system of school medical inspection is well developed and the results attain the highest efficiency. The school medical inspection in the States like New York, New Jersey, Pennsylvania, Virginia, Maine and Massachusetts, can be classed in grade A, according to the present status. The school medical inspection in the States like California, Alabama, Connecticut, Illinois, Indiana, Kansas, Michigan, Nebraska, New Hampshire, North Carolina, Ohio, Tennessee, West Virginia, Wisconsin, and Washington, D. C., can be classed in grade B, as they have relatively good school medical inspection. The school medical inspection in the States like Arizona, Colorado, Deleware, Florida, Georgia, Idaho, Iowa, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Montana, Nevada, New Mexico, North Dekota, South Dekota, Oklahoma, Oregon, Rhode Island, South Carolina, Texas, Utah, Washington, and Wyoming, can be classed in grade C, as they have done very little work in respect to school medical inspection.

The foregoing grading of the States, in respect to school medical inspection, is based upon the returns from my questionaires, especially based on the accomplished work. It is the known fact that the

school medical inspection is 90% of the States and cities, is not well organized, and needs urgent improvement with trained men and adequate appropriations at present. And those 10% of the States, however, are in a better position, but still need improvement in standardized methods and larger appropriations before can attain the ideal state.

III. Present System of School Medical Inspection in the Representative States and Cities.

Why should we have school medical inspection? The answer is this, that the school medical inspection has the following objects to accomplish:

(1) Detection and correction of physical defects.

(2) Detection and exlucsion of communicable and parasitic diseases.

(3) Maintenance of hygienic conditions in schools.

(4) Vaccination and toxin-antitoxin immunization.

(5) Diagnosis of cases of mental deficiency.

(6) Correlation of medicine and pedagogy in order to produce the maximum efficiency in the schools.

At present, the system of school medical inspection even in the most advanced States and cities, has only accomplished the first four items out of the six mentioned above, and the last two items are still to be accomplished. And the scope of the medical examination is including:

(1) Eye-vision, strain, etc.

(2) Diseases of nose, throat (large tonsils and adenoids).

(3) Defective hearing.

(4) Decayed teeth.

(5) Poor nutrition and underweight.

(6) Defective speech.

(7) Nervous Disorders.

(8) Orthopedic Defects.

(9) Parasitic and Skin Diseases.

For the purpose to carry on the above mentioned scopes of work in respect to school medical inspection, the advanced States like New York and New Jersey and cities like Chicago and Philadelphia, have Bureau of School Medical Inspection, and in New York and New Jersey, the Bureau of School Medical Inspection consists one of the important bureaus of the Board of Education, and the full-time director and assistants and nurses are employed. The annual routine examination is conducted throughout all the public schools in the fall term, and the defects found and the follow-up work is done by nurses. The cities like Oakland and Los Angeles have special Bureau for School Medical Inspection and full-time director and assistant school inspectors and nurses too. Therefore, the system of school medical inspection in representative States and cities can be simplifiedly stated as follows:

(1) Bureau of school medical inspection under the Board of Education with the cooperation of the State Department of Health.

(2) Full-time director with assistant inspectors and nurses.

(3) Salary for director and inspectors is from 3000-5000 dollars annually.

(4) Annual routine examination is conducted throughout all the public schools in the fall term.

(5) Defects found and the parents of the respective children are notified and the follow-up work is done by nurses.

(6) The correction of defects are checked at reexamination in the following year or few months after the first examination.

(7) Three annual examinations are generally recommended for a child through the public schools, the first examination when the child

just attends school, the second examination when the child in third or fourth grade, and the third examination before the child's graduation, if no defects found in the child at the first examination and subsequent examinations.

(8) The annual examination in the first year of high school is also justified as many high school pupils have physical defects which have been since neglected.

(9) Average number of pupils per inspector is from 4000-6000 in the representative states and cities.

(10) Statistics of the results obtained from school medical inspection are compiled in representative states and cities.

From my personal investigations, I may say that the system of school medical inspection in New York State comes to our expectation more closely than any other states in this country.

IV. Correction of Defects Found in School Medical Inspection and Accomplished by the Representative States and Cities.

We do not know what the school medical inspection is accomplishing, unless we have available statistics of correction of defects, as the latter is the index for determining the efficiency of school medical inspection, although many states and cities, having school medical inspection for several years, at present are not advanced enough and be able to have compiled such statistics, owing to the imperfect system of school medical inspection and lack of funds and trained men or the results not justified for compilation. For this obvious reason, the statistics of correction of defects now collected from different sources is not complete. Relatively, some statistics collected is fairly good, and will be reproduced and discussed.

As the State of New York has the efficient school medical inspection, so the statistics is the most complete.

Table I shows the total number of physical defects found among school children each year, and for the seven years period by Bureau of School Medical Inspection of New York State.

Year	In cities and large villages	In rural schools	in all schools
1915-16	131,431	36,644	168,075
1916-17	166,097	176,229	342,326
1917-18	138,093	177,063	315,156
1918-19	154,665	174,180	328,845
1919-20	186,808	220,753	407,561
1920-21	244,563	291,636	536,199
1921-22	262,153	307,641	569,794
Total	1,283,810	1,384,146	2,667,956
Average	183,401	197,735	381,136

It stated that every 1000 physical examinations made during the seven years, 1915-1922, the following number of physical defects were found:

In cities and large villages	797
In rural schools	956

It is a striking fact that children of rural schools have more than 19% higher physical defects than the children in cities and large villages from the New York findings.

Table II Total number of physical defects corrected or treated in each and seven-year period in New York State.

Year	In cities and large villages	In rural schools	In all schools
1915-16	52,632	5,455	58,087
1916-17	49,979	34,431	84,410
1917-18	46,421	38,684	85,105
1918-19	58,433	40,701	99,134
1919-20	84,514	56,997	141,511
1920-21	129,710	80,034	209,744
1921-22	157,157	90,004	247,161
Total	558,846	346,306	905,152
Average	79,835	49,472	129,307

It also stated that 905,152 physical defects were corrected or treated, but 1,762,804 received no attention of which 724,964 were among children in cities and large villages and 1,037,840 among children in rural schools, therefore, the physical defects of children in rural schools uncared

are more than 43% higher than uncared children in cities and large villages, of course there is no doubt that the children in rural schools are much more neglected on the part of parents and school authorities.

TableIII Percentage of defects corrected or treated in each year and during the seven-year period in New York State.

Year	In Cities and large villages	In rural Schools	In all schools
1915-16	24.3%	14.8%	22.66%
1916-17	30.0%	19.9%	24.55%
1917-18	33.6%	21.8%	27.00%
1918-19	37.7%	23.3%	30.14%
1919-20	45.2%	25.8%	34.72%
1920-21	55.0%	27.4%	39.11%
1921-22	59.9%	29.3%	43.3%
Average	43.5%	25.0%	33.9%

It should be noted from the Table III that 66.1% of all physical defects found among the school children in New York State received no corrective attention. In cities and large villages the children were better only 56.[illegible]% uncared for while in rural communities 75% received no corrective attention. The defects found in school medical inspection in New York State has shown only 33.9% in all schools corrected or treated after seven years successful work. From the Table III the increase of corrections made year by year that has proved the efficiency of school medical inspection being gradually built up without any doubt.

The statistics of correction of defects in State of Pennsylvania is available in the following table:

Table IV.

	Pupils inspected	Pupils treated
School year ending June 30, 1916	485,337	66,550
School year ending June 30, 1917	455,510	44,577
School year ending June 30, 1918	485,008	65,186
School year ending June 30, 1919	393,306	55,464
School year ending June 30, 1920	485,135	70,471

Table IV Continued.

	Pupils inspected	Pupils treated
School year ending June 30, 1921	546,219	94,761
School year ending June 30, 1922	529,727	95,037

It is stated that 1917 was incomplete, because of late inspections, and Dr. Charles H. Miner, State Health Officer of Pennsylvania, gave a rough estimate showing approximately 25% of dental defects corrected; 23% of tonsils and adenoids defects corrected, and 12% of visional defects corrected. From Table IV the number of treated pupils is much less than the number of inspected pupils, and this fact is due to pupils seen by inspectors and not being treated. In the rural school districts during the years 1921-1922, the total number of children examined 534,849 of which 132,958 normal and 401,891 defective, therefore, the percentage of defects found in rural school districts was 75.1% and the average corrections was 29.5%. The statistics of correction of defects given by Pennsylvania was so inadequate for criticism.

The State of Virginia has not compiled the statistics on correction of defects yet, as Dr. [illegible]. E. Brydon, Director of Child Welfare Bureau of State Board of Health of Virginia, informed me that the first law requiring the testing vision and hearing was passed in 1908, but except for individual work here and there, it was not begun systematically until 1916. The work of inspection for vision, hearing, teeth, underweight, and in some cases tonsils, is now being done by teachers. Most of the past five years has been spent in getting the physical inspection work established through the school teachers. Last year, through the 79 rural school supervisors and the 30 county school nurses, they tried to get a line on this most important phase of the physical inspection work. They have a partial report of corrections made, and are working toward having more complete statistics at the end

of the coming school year.

Table V Physical inspection of school children in Virginia for year ending June 1st, 1922.

	Enrollment 1921	No. inspected	% defect eyes	% defect hearing	% defect teeth
Total for counties	414,610	193,099	39,916	13,136	108,252
Total for cities	110,264	143,433	4,283	1,196	24,526
Total for state	524,856	336,532	44,199	14,332	152,778

	% defect tonsils	% underweight
Total for counties	7,567	20,287
Total for cities	1,634	4,058
Total for state	9,201	24,345

This above table tells no correction and from this table we learn that 64.1% of the enrolled school children have been inspected during the year ending June 1st, 1922. The State of Alabama has a state-wide school medical inspection, but the extent of the system of school medical inspection is no doubt incomplete, as Dr. Douglas L. Cannon, Director of County Organization of State Board of Alabama, has collected some information regarding the correction of defects for me, and I have put them in shape in the following table.

Table VI

Name of County	No. of physical examinations	No. of pupils found defective	% of correction of defects about	Statement by whom made
Baldwin	5118	2047	10%	County H. O.
Barbour	3429	1296	very small	" " "
Covington	2105	1893	very small	" " "
Dallas	2009	1222	20%	" " "

Table VI Continued.

Name of county	No. of physical examinations	No. of pupils found defective	% of correction of defects about	Statement by whom made
Exowah	6000	———	12.5%	County H. O.
*Jefferson	9565	———	*78. %	Miss Z.LaForge
Madison	6573	3820	31.2%	County H. O.
Morgan	7293	5571	36. %	" " "
*Pike	2558	2018	*75. %	" " "
Sumter	1234	304	20. %	" " "

From this above table, Jefferson and Pike Counties have the corrections of 78.% and 75% respectively, but the avlue of the estimation, in my opinion, is doubtful, because it seems too high, on the other hand, no statistics will have much value unless the complete data are available, and systematically tabulated. At preasent, there is no statistics of correction of defects available for State of Alabama. The State of Tennessee has the school medical inspection which is considered fairly good, but the statistics on correction of defects is not available for all state and previous years except for two counties, namely, Montgomery and Roane for the last year. As Dr. E. L. Bishop, Director of Rural Sanitation of State Board of Health of Tennessee, requested by me and he compiled the statistics on correction of defects for the above mentioned two counties, and the data being produced in the following table:

Table VII

	Montgomery County	Roane County	Total
Number of children re-examined.	1805	2067	3872
Number of children with defects corrected or improved.	821	1126	1947
Number of defects corrected or improved.	1134	1844	2978
:Hearing	32	121	153
:Ear	37	28	65
:Undernourishment	247	216	463
:Postural	67	42	109
:Skin	17	28	45
:Teeth	192	628	820
:Vision	165	167	332
:Eye	46	47	93
:Nose	36	22	58
:Adenoids	48	160	208
:Tonsils	77	305	382
:Enlarged Cervical Glands	83	79	162
:Heart	1	-	1
:Anemia	120	1	121

From the above table, the percentage of correction of defects for the total two counties will be 76.0% and for Montgomery 62.6% and for Roane 89.5%, respectively. According to the results shown in the above table, it is better for Roane County, but as a whole, the results accomplished by these two counties, Montgomery and Roane, in the school medical inspection, are fairly good. If it can accomplish the same results throughout the State of Tennessee, then the school medical inspection in Tennessee can be ranked as one of the best States, in respect to school medical inspection.

The State of North Carolina has no statistics tabluated on defects found or classified corrections for any large number of children except those of teeth and tonsil corrections. They have the other data on individual cards for each child, concerning many thousands of children all over the State, but they have never felt justified in having the information tabulated, as it would take a great deal of time and expense to do so. Under the law, the idea is to take care of the more common defects as far as possible. Thus, they have picked the two most common remediable conditions with which to deal specifically. Dr. [illegible] Cooper, Assistant State Health Officer of North Carolina, has tabulated enough data on the general subject and stated that not less than 10% and probably not more than 20% of children suffer from some defects of vision; but as such a large percentage of those grow better without treatment along about puberty, they have felt that there was little that they could satisfactorily do along this line. It has been their experience that the results obtained in treating eye defective children less satisfactory and also a very large number of children, at least in State of North Carolina, who are underweight are in that condition directly as a result of teeth or throat diseases; hence the corrections of these defects nine times out of ten remedy the underweight condition.

During 1917-1921, inclusive, the number of school children examined and treated directly through the agencies of the Bureau of Medical Inspection of Schools of State Board of Health, of North Carolina, was given in the following table:

Table VIII Five years of medical inspection of school children in North Carolina.

Children examined by teachers,	500,000
Children examined by school nurses, physicians and dentists,	240,128
Children given free dental treatment,	66,452
Children operated on in tonsil clinics,	3,595

From the above data, the total number of children examined was 740,128 and the total number of treatments also tonsil operations, was 70,047, therefore, the corrections were about 9.4%. It is true that we cannot criticise the results on the basis of the incomplete data as given in Table VIII, but it has well illustrated in Table VIII how small the corrections were, even if the dental corrections included.

The school medical inspection in the State of Indiana, was told in Dr. Wm. F. King's letter that they do not have compulsory school medical inspection in Indiana. Some medical inspection work is carried out in nearly every school community of the State, but principally through public health and visiting nurses. Most of the larger cities have systematic medical inspection with school physicians and school nurses, but the State Board of Health is not in a position to furnish statistics as to the percentage of corrections made as the results of inspection. Perhaps the best and most systematic school medical inspection in the State of Indiana is in connection with the schools at Gary. As Dr. Wm. F. King is the present Commissioner of Health of State Board of Health of Indiana, and his statement in Indiana cannot be determined, owing to lack of necessary statistics for all States.

The situation of school medical inspection in the State of

Kansas is that they do not have the systematic school medical inspection, however, under the law, every school child is required to have an annual dental inspection. In some of the larger cities of the State, school boards maintain medical clinics for the inspection of school children, however, this is in the cities and in some of the counties, medical inspection is not compulsory. They do not have any statistics on correction of defects found in school medical inspection.

As to the school medical inspection, also the correction of defects in the State of Minnesota, can be well illustrated by the letter from Dr. A. J. Chesley, Executive Officer of the State Board of Health, of Minnesota, that no systematic school medical is provided throughout Minnesota. Minneapolis, St. Paul, and Duluth have excellent work. In a considerable number of other places in Minnesota, medical inspection has been provided for, off and on. It has been continuous only in two or three other places, and then, by part-time physicians. For this diverse condition, the statistics on correction of defects, cannot be secured.

The State of Louisiana has no universal systematic school medical inspection, but the work is done systematically in a number of cities under the direction of the School Department, notably in New Orleans, Shreveport and Baton Rouge. The State Board of Health has put over at different times, medical inspection of all the schools in a parish (Jefferson Davis and East Baton Rouge) and the city and parish schools in the city of Monroe. The experience has been that, generally, only about 10% of the defects are remedied, however, this may not be true of New Orleans, as they have a follow-up system there.

Dr. I. B. Krause, Director of Division of Child Hygiene, of State Board of Health, of Missouri, states that during the first six months in 1923 there were 61,657 school cchildren examined, and they have [illegible],268 corrections reported. This, he states, does not include all

the corrections made during this period, as it is a very difficult thing to get an accurate account of the corrections. It will be impossible to have statistics on correction of defects compiled before the correction of defects are reported regularly.

Dr. [illegible]. [illegible]. Stolz, State Supervisor in Physical Education of State Board of Education, of California, states in California, school authorities do not undertake the correction of defects except those which can be benefited by (1) dental treatment, (2) by proper nutrition. There is no state-wide system of school medical inspection in California. The cities of Los Angeles, San Francisco, Oakland, and to some extent, the smaller towns of California, have their own local requirements regarding corrections and defects. Dr. F. W. Almond, Director of Public Health Service, of State Department of Public Welfare, of Idaho, states that the correction of defects has been reported to be as low as 1% but he estimates it as closer to 1[illegible]% in the schools in Idaho. They have no statistics on correction of defects.

Dr. [illegible]. S. Luckett, Director of Bureau of Public Health of State Department of Public Welfare, of New Mexico, states that for the first six months of 19[illegible], 1[illegible] nurses reported the individual inspection of 8,734 pupils, and the correction of 837 defects, but he is not sure that this last figure represents the total number of children having the defects corrected, or whether it may include two or three defects for one child. While the report blanks call for this information, it is not always correctly given, and would not be reliable for statistical purposes. They have estimated that approximately 10% of the defective children have had corrections made, so far as the reports show, however, the health officers and nurses report that many children are applying to private physicians for corrective work, but that these physicians

do not always report to the health officer or nurse, the number of corrections made. Hon. John Enright, Commissioner of Education, of States Department of Public Instructions, of New Jersey, states that they have school medical inspection in all schools of the State. The medical inspectors are appointed by the local boards of education. In most of the schools, there is follow-up work done by the nurses that are employed. And Dr. A. [illegible] Carr, Medical Director of Board of Education, Trenton, N. J., states that school medical inspection in Trenton began in 1909 with one nurse and five part-time doctors. Since then, there have been added 11 nurses, a full-time medical director, and a full-time dentist. *In 1922-23, there were found 1660 major defects, and 571 of those were corrected. This does not include corrections of dental defects, nor does it include defects such as pediculosis, minor injuries, etc. The method followed in Trenton is as follows: Physical examination of every child, including high schools, once a year, a dental examination once a year, follow-up by the nurse of those cases requiring home cooperation.

Hon. J. N. Pringle, Deputy Commissioner of State Board of Education, of New Hampshire, states that during 1921-22, 51,261 pupils were examined. 65,565 notices were sent to parents. Their examination during that year showed that there had been 16,391 cases treated since the examination of the previous year.

Mr. Augustus O. Thomas, of State Department of Education, of Maine, states that they have one hundred school physicians, fifty school nurses, and about forty physical directors, and the school medical inspection work has been active only in recent years. The work has not been carried to a sufficient extent thus far to let them determine the percent of corrections outside of a few cities. In the city of Rumford, three years medical inspection reduced the number of defects 50%.

The school medical inspection and its results in the rest of the states is not justified to comment here. Among the most progressive cities having good system of school medical inspection, are New York City, Chicago, and Oakland, etc. Therefore, these cities will be described seperately, as follows:

New York City first made examinations for physical defects in school children between 1909 and the results obtained from year to year till 1915, inclusive, being presented in the following tables:

Table IX Physical examination of school children in New York City - Decrease in number of nose and throat defects.

Year	No. of physical examinations made	No. found needing treatment	Defective nasal breathing	Hypertrophied tonsils
1909	231,061	172,112	43,393	50,934
1910	266,420	196,684	40,946	50,012
1911	230,243	166,368	27,316	34,639
1912	287,469	206,720	21,931	30,021
1913	330,179	230,432	29,057	36,958
1914	308,[illegible]95	221,632	28,877	36,153
1915	308,665	222,072	29,067	34, 378

Table X Number and percent of nose and throat cases among children found needing treatment, New York City.

	Defective nasal breathing		Hypertrophied tonsils	
Year	Number	percent	number	percent
1909	43,393	25.5	50,934	29,3
1910	40,946	20.6	50,012	25.4
1911	27,316	16.4	34,639	20.8
1912	21,931	10.6	30,021	14.5
1913	29,057	12.2	36,958	15.6
1914	28,877	13.1	36,153	16.3
1915	29,067	11.5	34,378	15.5

Table XI Cases reported treated during 1909-1914 - Character of treatment obtained by school children in New York City.

	1914	1913	1912	1911	1910	1909
Defective nasal breathing:						
Operative----------	6,446	6,359	6,288	11,234	8,714	9,974
Medical------------	9,227	6,473	7,056	11,555	14,370	30,122
Hyperthrophied tonsils:						
Operative----------	10,124	6,583	6,239	9,308	10,275	10,757
Medical-----------	9,926	9,686	7,898	12,339	16,743	33,396

From Tables IX and X that the percentage of children found with defective nasal breathing and hypertrophied tonsils has varied from year to year since 1909 till 1915, but has been uniformly high, never falling below 10% and that the seriousness of the ailment has been forcibly brought home to the parents, with the results that proper treatment was obtained for increasing numbers of children, is no doubt evidenced by the progressive decrease in the number of these cases. Another fact was the prompt action on the part of parents as is shown by the large number of cases treated.

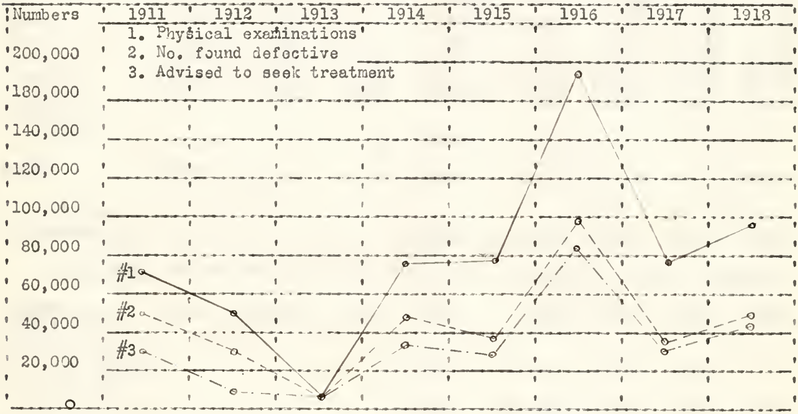
Table XII. Comparison of percentage of defects found in school children by family physicians and by school medical inspectors in New York City.

	By family physicians		By inspectors	
	1915-16	1918-19	1915	1918
Total examinations,	16,203	6,019	278,174	247,375
	Percentage		Percentage	
Defects found:				
Vision	3.8	2.3	8.9	9.4
Hearing	.9	.4	.7	.5
Nasal breathing	11.7	5.7	10.0	10.1
Hypertrophied tonsils	20.8	12.1	11.6	13.5
Nutrition	10.3	5.7	6.3	14.2
Cardiac	1.9	1.4	1.5	1.6
Pulmonary	1.5	.6	.3	.3
Orthopedic	1.5	.9	.7	.8
Nervous	3.9	2.6	.7	.6
Teeth	33.8	19.5	64.7	65.2

From the preceding table there is much variation between the percentages obtained by family physicians and inspectors in defects of teeth, nutrition and hypertrophied tonsils. In some respects the inspectors are acquainted with the common defects among the children, and their results obtained in 1915 in comparison with that of 1918 are much more uniform than those obtained by family physicians in the two periods, as there is significant variation in the percentages obtained by family physicians in 1915 and 1918. Therefore the correction of defects will be affected accordingly by the experiences of physicians or inspectors.

As the City of Chicago was the second city in United States to begin school medical inspection of the pupils in the schools. This dates back to 1895, at which time, through cooperation with the Board of Education, physicians visited schools upon the requests of Principals. And the statistics on defects found and corrections mado were available in the following tables:

Table XIII. Number of physical examinations of school children, number found defective and number advised to seek treatment from 1911-1918. City of Chicago.



From this above chart we learn that number of examinations, defects found and also number advised to seek treatment are all in parallel with only slight variation.

Table XIV. Physical examinations of school children in City of Chicago.

Years	1911	1912	1913	1914	1915	1916	1917	1918
Physical ex. performed,	72,350	43,505	3,015	75,476	79,382	191,225	77,693	69,844
Found defective,	46,423	27,123	1,308	45,176	37,356	101,237	34,284	47,556
% found defective,	64.2	62.3	43.4	59.9	47.1	52.9	44.1	68.1
Advised to seek treatment,	27,639	16,806	1,308	34,425	32,860	88,044	28,355	35,053
Defects found:								
Malnutrition,	1,576	959	62		804	4,806	2,550	5,373
Anemic,	1,666	1,105	254	981	2,639	5,401	2,902	6,280
Enlarged glands,	11,459	7,463	675	4,362	7,970	21,690	3,758	12,447
Goiter,	630	653	78	670	1,556	2,673	310	2,055

(Cont'd)

Years	1911	1912	1913	1914	1915	1916	1917	1918
Nervous diseases,	277	217	22	230	340	659	124	324
Cardiac diseases,	290	177	50	243	414	716	122	389
Pulm. diseases,	153	93	35	45	68	716	88	1,252
Pul. T.B.,	39	40	40	37	87	292	1,407	1,790
Skin dis.	1,451	769	32	313	701	848	190	632
Orthopedic,	417	312	71	220	171	1,128	220	326
Rickets,	204	216	36	221	372	385	70	268
Vision,	11,524	7,053	565	5,001	7,837	11,973	2,008	7,780
Other diseases of eye,	905	901	93	541	1,076	2,191	296	1,036
Hearing,	959	776	41	464	663	1,255	245	523
Ear,	363	302	37	233	372	663	116	392
Nasal breath.	3,380	2,620	234	1,489	2,603	6,214	934	2,439
Palate,	498	430	22	503	971	978	156	546
Teeth,	27,676	18,017	1,017	11,603	22,711	56,251	6,550	30,632
Tonsils,	15,097	9,603	1,122	7,163	11,777	31,642	4,689	18,611
Adenoids,	3,465	2,538	262	2,593	4,489	14,262	3,063	10,028
Tonsils and adenoids,	-	-	-	1,781	4,350	-	-	-
TOTAL,	82,029	54,244	4,748	38,670	71,971	164,320	29,798	103,123
No. referred to nurses,	-	-	-	35,425	32,860	88,044	28,355	35,053

Table XV. Dental service in school medical inspection in City of Chicago.

Years	1911	1912	1913	1914	1915	1916	1917	1918
Dental surgeons' visits to dispensaries,	-	-	-	2,227	2,043	2,196	2,126	-
No. of pupils examined,	-	-	-	15,598	10,760	7,049	5,401	5,999
No. of pupils found defect.,	-	-	-	13,586	8,776	5,004	5,381	2,703
No. of treatment given,	-	-	-	55,625	31,616	30,744	34,965	18,463
No. of fillings,	-	-	-	21,905	28,421	28,877	31,501	14,459
No. of crowns,	-	-	-	19	85	63	12	46
No. of extractions,	-	-	-	19,823	23,457	20,554	14,455	6,480

Table XVI. Showing the effects of correcting physical defects of school children in City of Chicago.

This table showing the number of physical defects corrected during the school year September, 1916 to June, 1917 and the school health officer's reports on the effect of the correction during the course of the same year on the health, mentality and attendance of the pupils.

(Next page)

Correction of defects:

ve
, 1,670.

Enlarged thyroids,	247	Adenoids,	3,108
Nervous diseases,	273	T.B.,	1,637
Defective vision,	3,145	Nutrition,	1,393
Hypertrophied tonsils,	5,108	Anemia,	1,564
		Teeth,	12,382

Results of correction of defects on health:

	Health	Mentality	Attendance
Improved,	12,893	10,241	10,654
	77.5%	61.5%	64.05%
Not improved,	3,511	5,113	4,984
	21.1%	30.7%	29.9%
No data,	288	1,278	994
	1.4%	7.8%	6.05%

Table XVII. Physical examinations of school children, 1919-1921, in City of Chicago.

Years.	1919	1920	1921
Number of pupils examined,	92,899	58,560	49,068
Number of pupils found defective,	56,486	40,875	35,494
Native-born found defective,	51,437	37,852	31,969
Foreign-born found defective,	5,049	3,023	3,525
Total number defective found,	161,984	97,082	82,583
These defects were divided as follows:			
Malnutrition,	8,607	4,897	3,599
Anemia,	8,483	5,010	3,609
Enlarged glands,	22,329	12,503	8,194
Goiter,	3,567	1,741	1,336
Nervous diseases,	604	261	329
Cardiac diseases,	755	507	332
Pulmonary diseases,	1,413	608	653
Skin diseases,	856	450	586
Orthopedic diseases,	596	596	285
Rachitic type,	536	237	240
Defective vision,	13,440	9,343	8,753
Other diseases of eye,	1,892	1,419	1,168
Defective hearing,	988	822	975
Discharging ear,	681	376	747
Nasal breathing,	3,857	2,002	1,792
Palate defections,	1,115	464	498
Teeth defects,	47,730	30,244	25,363
Tonsils hypertrophied,	29,427	17,336	15,722
Adenoids,	13,682	8,006	7,734
Mental defects,	426	-	566
#Advised to seek treatment and referred to the nurse for treatment,	61,084	41,553	31,507
Transferred to fresh air rooms,	1,433	898	241

Table XVIII. (Next page)

Table XVIII. Dental service in school medical inspection in City of Chicago, 1919-1921 inclusive.

	1919	1920	1921
Average number of dental surgeons working, 6, except that in October, November and December, the no. is,	14	13	6
Number of children attended,	14,323	17,435	9,904
New patients,	3,920	5,464	2,446
Revisit cases,	8,196	10,538	6,340
Emergency cases,	2,207	1,938	1,252
Children examined and found defective,	3,382	8,242	2,693
#Number of treatments,	14,598	12,855	6,559
Number of root operations,	1,392	1,263	527
Number of miscellaneous,	2,321	4,761	1,835
Number of extractions,	9,046	12,500	8,906
Number of fillings,	15,190	16,323	5,930
Number of porcelain crowns,	192	10	-

Table XIX. The physical defects followed by nurses and the corrections obtained in 1919.

Home calls in connection with physical defects, total, 143,273.

	Under care 1st of yr.	Under care during yr.	#Corrections obtained dur. yr.	Dropped dur. yr.	Remaining u. care end of yr.
Malnutrition,	2,669	3,946	653#	1,839	4,153
Anemia,	3,806	4,831	736#	3,205	4,696
Enlarged glands,	6,778	5,975	933#	2,761	9,059
Goiter,	985	1,067	89#	399	1,564
Nervous diseases,	457	380	49#	237	551
Cardiac dis.,	465	365	25#	197	608
Defect in speech,	253	280	47#	95	391
Suspect T.B.,	1,815	3,484	1,031#	934	3,334
Skin dis.,	457	1,803	1,265#	321	674
Orthopedic d.,	446	281	38#	158	531
Rachitic type,	253	121	15#	96	265
Defective vision,	8,187	8,845	4,454#	1,771	10,807
Other dis. of eye,	1,355	1,155	408#	409	1,693
Hearing defects,	731	602	68#	216	1,049
Ears discharging,	549	589	184#	190	764
Nasal breath.	2,361	1,372	389#	600	2,744
Palate defects,	283	147	19#	77	334
Teeth defects,	39,618	28,041	9,465#	7,688	50,706
Hypert. tonsils,	20,630	15,016	3,764#	4,310	27,572
Adenoids,	9,383	7,072	2,257#	2,504	11,694
Mental def.	463	214	37#	201	439
Pediculosis,	7,445	1 3,121	7,423#	3,734	9,409
Unclassified,	126	495	217#	166	238
TOTAL,	109,745	99,203	33,566#	32,108	143,273

Table XX. The physical defects followed by nurses and the corrections obtained in 1920, City of Chicago.

	Under care 1st of yr.	Under care during yr.	#Corrections obtained dur. yr.	Dropped dur. yr.	Remaining u. care end of yr.
Malnutrition,	4,153	2,305	368#	748	5,342
Anemia,	4,696	2,460	353#	760	6,043
Enlarged lymph glands,	9,059	2,925	388#	724	10,872
Enlarged tyroid,	1,564	411	34#	115	1,826
Nervous diseases,	551	257	46#	57	705
Cardiac diseases,	608	135	14#	39	690
Defective speech,	391	164	23#	26	506
Suspect T.B.,	3,334	2,482	568#	434	4,814
Other pulmonary dis.,	-	242	40#	6	196
Skin diseases,	674	1,680	1,241#	161	952
Rachitic type,	263	91	32#	6	316
Other orthopedic dis.,	531	182	84#	37	592
Vision defective,	10,807	5,341	3,609#	1,199	11,340
Other dis. of eye,	1,693	772	369#	164	1,932
Hearing defect.,	1,049	404	46#	46	1,361
Ears discharg.,	764	387	125#	61	965
Nasal breath.,	2,744	576	192#	120	3,008
Palate defect.,	334	102	11#	5	420
Teeth defect.,	50,706	13,881	7,684#	3,741	53,162
Hypertrophied tonsils,	27,572	6,527	2,356#	1,574	30,169
Adenoids,	11,694	3,631	1,316#	711	13,298
Mentality defect.,	439	128	27#	23	517
Pediculosis,	9,409	10,519	5,199#	543	14,186
Unclassified,	238	606	229#	57	558
TOTAL,	143,273	56,208	24,354	11,357	163,770.

Table XXI. The physical defects followed by nurses and the corrections obtained in 1921, City of Chicago.

	Under care 1st of yr.	Under care during yr.	#Corrections obtained dur. yr.	Dropped dur. yr.	Remaining u. care end of yr.
Malnutrition,	5,342	1,785	466#	4,813	1,848
Anemia,	6,043	1,868	500#	4,799	2,612
Enlarged lymph glands,	10,872	2,024	455#	9,140	3,301
Enlarged thyroid,	1,826	429	47#	1,591	617
Nervous diseases,	705	317	58#	687	277
Cardiac diseases,	690	181	10#	658	203
Defective speech,	506	170	31#	446	199
Suspect T.B.,	4,814	1,818	542#	4,406	1,684
Other pulmonary diseases,	196	59	30#	142	83

(Cont'd)	Under care 1st of yr.	Under care during yr.	#Corrections obtained dur. yr.	Dropped dur. yr.	Remaining u. care end of yr.
Skin diseases,	952	1,655	1,522#	853	232
Rachitic type,	316	52	4#	294	70
Other orthopedic diseases,	592	167	27#	469	263
Vision defective,	11,340	6,571	4,647#	8,518	4,746
Other diseases of the eye,	1,932	1,175	672#	1,755	680
Hearing defective,	1,361	651	131#	1,141	740
Ears discharging,	965	606	211#	1,014	346
Nasal breathing,	3,008	674	352#	2,600	730
Palate defective,	420	39	3#	374	82
Teeth defective,	53,162	14,057	8,660#	44,230	14,329
Hypertrophied tonsils,	30,169	7,019	3,329#	23,150	10,709
Adenoids,	13,298	3,794	2,295#	10,005	4,792
Mentality defect.,	517	103	18#	487	115
Pediculosis,	14,186	12,752	7,954#	18,444	540
Unclassified,	558	253	129#	623	59
TOTAL,	163,770	58,219	32,093	140,639	49,257

The City of Chicago has claimed in its report that during 1921 49,068 physical examinations were made of pupils in the schools, 35,494, or about 75%, of those examined were found to be defective, 82,584 defects being found. Thirty-one thousand five hundred seven of these children were referrod to the school nurse for follow-up work to obtain corrections, and 32,093, or about 40%, of the defects found were corrected through the efforts of school nurses. The correction of defects found in school medical inspection in Oakland Public Schools was produced here in the following tables.

Table XXII. The number of defects corrected 1921-1922, Oakland Public Schools.

Tonsil and adenoids operations	2,097
Dental	11,793
Eyes	1,248
Ear	572
Medical and orthopedic	550
Skin	481
Nose and throat treatments	199

The number of examinations made during the same period:

Team examinations	14,584
Special examinations	19,642

(Cont'd)

Calls at home	8,219
Examined at home	3,207
Referred to:	
County hospital	88
Baby hospital	437
Emergency hospital	103

Table XXIII. The number of defects corrected 1922-1923, Oakland Public Schools.

School	Tonsil adenoid operations	Dental	Eyes	Ears	Medical Orthopedic	Skin	Nose and throat treatment
Allendale,	31	367	23	6	15	15	17
Bella Vista,	3	26	3	1	-	3	-
Boulah,	5	20	4	3	11	8	-
Campbell,	10	48	2	-	-	7	3
Claremont,	4	259	12	1	2	-	5
Clawson	24	304	62	31	54	56	71
Cleveland,	10	168	9	2	1	4	2
Cole,	101	509	33	4	14	10	90
Dewey,	59	363	50	39	119	73	25
Durant,	37	461	35	23	45	42	56
Elmhurst,	32	300	17	5	9	20	16
Emerson,	51	407	23	8	63	68	19
Franklin,	17	224	30	2	8	12	2
W.F. Brick,	29	275	18	7	11	13	10
Fruitvale,	14	490	22	-	6	2	4
Garfield,	27	230	28	10	10	20	26
Golden Gate,	34	343	17	3	45	48	27
Grant,	35	181	21	2	8	23	8
Harrison,	14	111	5	-	3	1	8
Hawthorne,	10	128	11	4	-	10	6
Highland,	28	272	18	3	21	40	10
Jefferson,	40	503	73	40	147	60	20
Lafayette,	124	657	127	33	204	246	76
Lakeview,	19	178	22	2	8	8	3
Lakeview Annex,	36	89	24	3	9	14	10
Laurel,	23	75	33	21	83	29	18
Lazaar,	45	356	63	44	139	89	11
Lincoln,	63	190	94	28	131	178	62
Lockwood,	48	600	31	14	34	18	20
Longfellow,	54	344	36	24	33	33	36
Manzanita,	7	225	19	10	6	10	10
McChesney,	12	484	36	-	32	8	-
Melrose,	61	301	50	34	114	84	31
Melrose Heights,	35	625	28	18	13	14	8
Peralta,	3	150	11	-	3	-	3
Piedmont Ave.,	14	125	13	1	3	12	8
Prescott,	110	542	77	-	9	23	124
Rockridge,	3	120	14	-	2	17	2
Santa Fe,	51	339	28	4	51	33	16
Sequoia,	8	30	18	2	9	10	-
Stonehurst,	18	125	6	4	4	21	2
Tompkins,	82	143	141	32	169	207	118
Washington,	3	382	7	1	3	4	-

School (Cont'd)	Tonsil adenoid operations	Dental	Eyes	Ears	Medical Orthopedic	Skin	Nose and throat treatment
Webster,	16	122	10	3	18	19	5
TOTAL,	1,450	12,279	1,319	474	1,659	1,612	988.

The above statistics on correction of defects found in Oakland School Medical Inspection is furnished to me by Dr. Alvin Powell, Director of Department Health Development and Sanitation, Oakland Schools, but he has given no record of number of pupils examined in different schools and during the entire year; therefore we can not determine what will be the percentage of accomplishment in correction of defects.

There is some statistics on correction of defects supplied to me by Mr. Genevieve Lill, Supervisor of Department of Health of Wichita Public Schools, and being produced in next table.

Table XXIV. The results obtained by Wichita Public Schools ending June 1, 1923.

Nurses' Work	
Number of inspections	65,847
Number of routine inspections	14,153
Number of pupils having defects	2,419
Number of pupils having defective vision	858
Number of pupils having defective hearing	57
Number of pupils having defects of nose and throat	1,424
Number of pupils having skin diseases,	225
Number of home visits	1,480
Number of written communications	2,466
Number of class health talks	486
Number of parent consultations at school	135
Number of throat cultures taken	488
Number of dressings done	1,067
Number of pupils excluded and excused	388
Number of pupils weighed and measured	22,489
Number of pupils 10% or more underweight weighed each period	1,444
Corrections made	
Number having had defective teeth carrected	1,141
Number having had defects of nose and throat corrected	207
Number having eye defects corrected	291
Other corrections	16
Dentists' Work	
Number of pupils inspected	13,640
Number of pupils having defective teeth	2,416
Number of pupils having permanent teeth defective	11,224

(Cont'd)

Number of pupils having defective 6 year molars	3,671
Number of pupils having temporary defective teeth only	2,428
Number of pupils needing prophylaxis	7,703
Number of pupils needing orthodontia	3,037
Number of defective permanent teeth	8,101
Number of defective temporary teeth	15,372
Number of defective six year molars	6,183
Number of oral hygiene talks	190
Amalgam fillings	659
Copper cement fillings	554
Extraction of permanent teeth	44
Extraction of temporary teeth	770
Prophylaxis	518
Treatments	238
Silver nitrate treatments	208
Root canal fillings	21
Synthetic fillings	41
Teeth devitalizes	23
Appliance adjustments	126
Eye, ear, nose and throat	
Operations (tonsils and adenoids)	80
Other operations	8
Glasses fitted	144

And in Mr. Lill's report that he stated 14,153 pupils were inspected for defects and 2,419 were found to be defective. These are largely correctable. But he did not include as defective any who had had defects corrected at the time of inspection. For instance, the number of pupils having defective vision would be much larger if those wearing glasses were counted. And he also stated that the enrollment last year in Wichita public schools, exclusive high school, was 15,000. His staff consists of himself, 4 nurses, 2 part-time nurses, 2 half-time dentists, 1 part-time dentist and the works in the preceding table were accomplished by them.

Table XXV. The correction of defects found in school medical inspection during 1922-1923 (ending July 31, 1923) in the public schools of Yonkers, N.Y.

Number of pupils registered during the year 1922-23	20,479
Number of pupils examined during the year 1922-23	11,076

Defects found in examination	No. of pupils recorded	No. of pupils treated
10% or more underweight or with other defects of nutrit.,	1,479	1,479
Teeth,	3,193	2,581
	5,136 (including those who have had their teeth cleaned by dentists)	5,136 (including those who have had their teeth cleane by dentists)
Nasal breathing	935	300
Tonsils	2,248	715
Lymph glands	366	132

(Cont'd)

Goiter	5	-
Nervous system	22	18
Speech	13	9
Eyes	1,164	1,164
Ears	588	588
Heart	244	66
Lungs	52	40
Orthopedic defects	678	263
Hernia	-	-
Skin or scalp	2,038	2,038
	3,554	3,554
O ther defects	221	221
TOTAL	21,936	18,304

From the preceding table, according to Dr. Littell, Medical Director of Yonkers Board of Education, that they have obtained 83% of correction of defects, and if this is true that Yonkers has done very good work in respect to school medical inspection.

Table XXVI. The correction of defects found in school medical inspection in the schools of Philadelphia, Pa.

Physical defects	Percent of cases treated	
Eye strain	30.4	
Hypertrophied tonsils and adenoids	23.9	
Ear defects	71.9	
Decayed teeth	43.4	
Orthopedic defects	79.2	
Poor nutrition	76.0	
Miscellaneous important defects	61.6	
Total important defects,	42.9	
Minor eye defects	85.7	
Contagious skin diseases	92.9	
Minor non-contagious skin diseases	95.4	
Miscellaneous minor defects	90.6	
Total minor defects,	91.7	
GRAND TOTAL		49.1%

Dr. Blair Spencer, Director of Department of Health of City of Philadelphia, has sent me the preceding table and stated that they have obtained during last year the correction of defects of 49.1% in Philadelphia schools.

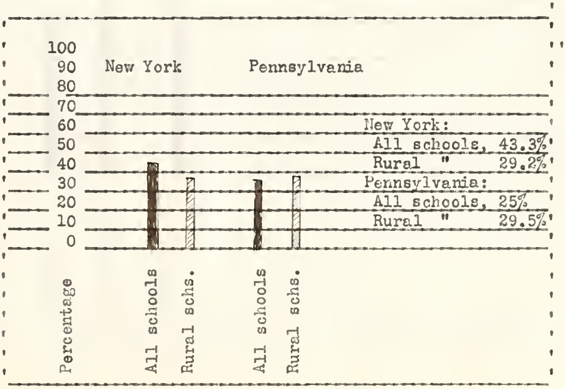
All these data on correction of defects reproduced in this paper are collected by me during the investigation, but so far as only these statistics are available that I can secure at present. No doubt they are incomplete. In going over the

above tables we can hardly draw any definite conclusion in regard to the efficiency of school medical inspection, because the different authorities have recorded their results in irregular way; therefore the statistics which have been compiled are incomplete. But I should say, however, the states and cities have incomplete statistics at present are still better than those states and cities having nothing at all.

V. Comparison of the results of school medical inspection in the representative states and cities.

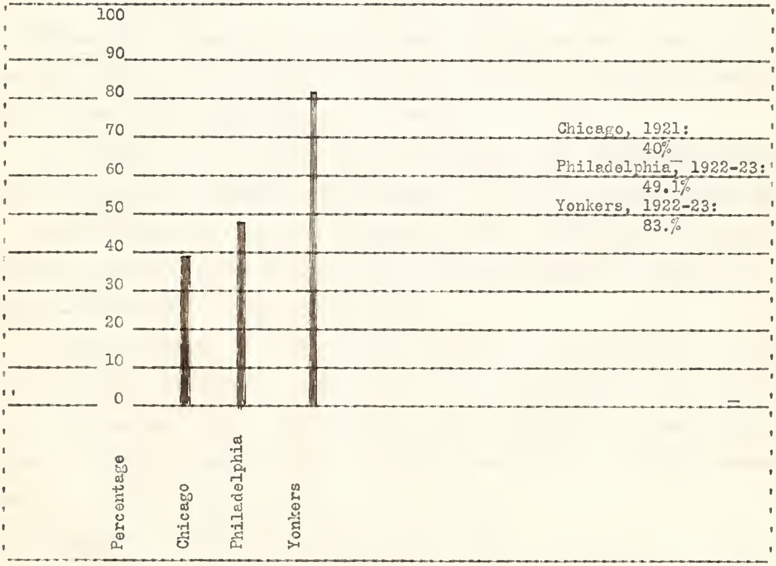
Owing to lack of uniform method of examining the school children and recording the results, it will not be fair to compare the result obtained by one state or city with the result of another State or city unless their methods of examining the children and recording the results are as near uniform as possible. For this reason that I can hardly use the data on the previous chapter and compare them and draw the conclusions; however, I will present here two charts showing the correction of defects of State of New York and Pennsylvania, City of Chicago, Philadelphia and Yonkers.

Chart I. The correction of defects of New York in comparison with that of Pennsylvania, for 1921-22.



This chart shows that Pennsylvania has higher correction of defects in rural schools than all schools and on the contrary New York has higher correction of defects for all schools than rural schools. What causes this extreme condition and I do not know. But I personally believe that city schools have higher corrections generally and rural schools have lower corrections, so when we figure out the percentage of correction for all schools the rate of city schools will be lowered and on the other hand the rate of rural schools can be raised by the average rate of combining city and rural schools. From this point of view I can say that New York has done better work in city schools than Pennsylvania and the latter State has not accomplished as much work in city schools as in rural schools.

Chart II. The correction of defects of Cities of Chicago, Philadelphia and Yonkers, for 1922-23 except Chicago 1921-22.



This chart shows that Yonkers the best, second Philadelphia and third, Chicago. How true can this represent actual situation of school medical inspection of these respective cities I am not able to say.

VI. Summary and conclusion.

1. The school medical inspection in United States was first started in large cities, and the first city to establish school medical inspection was Boston and dated back in 1894.

2. The state agency of the administration of school medical inspection has been usually the Board of Education and Board of Health or Board of Education with cooperation of Board of Health.

3. The most efficient system at present is under the Board of Education with cooperation of Board of Health, as New York is the case.

4. The methods of examining the children and recording the results were varied in each state and each city; therefore we should find some way to standardize the practice of school medical inspection in near future.

5. The present system of school medical inspection has been accomplishing the most part in exclusion of communicable diseases and very little on preventive medicine.

6. The statistics on correction of defects so far as I know is the best for New York State, and the results obtained in school medical inspection throughout the whole State are fairly uniform and quite good.

7. Strictly speaking, we cannot compare the results of one state and one city with another state and another city, because they do not use the same system and methods of examination, and also do not record the results in same way and interpretation, unless two states or two cities have the same standard of examination and recording, etc.

8. From going over the data available in this paper, I am aware that we still have much to improve in school medical inspection, and about 90% of the states and

cities have been claimed to have school medical inspection and actually have done nothing at all.

9. The corrections accomplished mostly are the common defects, such as teeth, nutrition and other minor defects.

10. Generally the large progressive cities have accomplished more correction work than the small cities, owing to former having better facilities.

11. I feel gratefully to those who have given me the best information they accumulated from their experiences; therefore, I wish to express my sincere appreciation here.

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